

Wayne Vogl
University of British Columbia
2075 Westbrook Place
Vancouver, B.C.
V6T 1W5

Ex. #511

G. R. Douglas
Director, Fisheries Operations
Fisheries and Marine Service
Central Region
501 University Crescent
Winnipeg, Manitoba
R3T 2N6

October 28, 1974

MANITOWAG VALLEY TECHNICAL
EXHIBIT NO. 571 A.E. Mar. 24/76
J. G. Kumpfe W.T.
C.O.P.E.

Dear Sir;

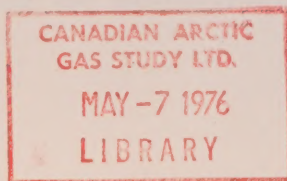
This report fulfills the terms stipulated in our permit of April 10, 1974 (file# 1375-7). The permit enabled an assistant and I to collect and sample Beluga (Delphinapterus leucas) and Narwhal (Monodon monoceros) for scientific purposes.

Beluga material was obtained at numerous locations in the Mackenzie Delta (Map 1). A base camp was established first at West Whitefish Station and secondly at Indian Camp.

We arrived at West Whitefish Station on July 1 and remained until July 18. Unlike previous years, only one family hunted from this site. Most people now favour a site southeast of Whitefish (Bird Camp) since it allows transit to and from Aklavik during bad weather.

Whales moved into West Mackenzie Bay 2-3 weeks later than usual, probably because of persistent offshore ice. The first whales were taken on July 12 by hunters from Bird Camp. Two animals were subsequently taken by the family at Whitefish. A total of five whales were sampled in the West Mackenzie Bay area.

Twelve days were spent in and around Kugmallit Bay (July 20 to August 1). During this period eleven whales were sampled and one purchased for plastic perfusion.



Since there is concern about the effect of boat traffic on hunting activity and whale movements, the following incident may be of interest. On July 29 we accompanied a hunting party to Hendrickson Island. No whales were observed en route so it was decided to wait. On the morning of July 30 one animal was shot between Hendrickson and Richards Islands and butchered near Kidluit Bay. Because there were three boats in our party, more than one whale was needed to make the trip worth while. The Inuit decided to wait in Kidluit Bay until the beluga returned from deep water. Just as animals were observed coming around the point, a hover-craft moving north traversed the water between Hendrickson and Richards Islands. The beluga vacated the area and were not seen until the following morning. The hunters were understandably upset since they had waited for at least 8 hours for favourable whaling conditions and were then required to wait further.

Comments made by hunters and personal observations suggest that fewer whales moved into the Mackenzie Delta this season than did so last year. Counts made by environmental consultant companies will provide quantitative data for comparison.

Spot checks of stomach contents demonstrated the presence of squid beaks (in animals sampled in both West Bay and Kugmallit Bay). No fish bones were found in any of the whales observed by us.

Our trip to Eclipse Sound was not nearly as successful as anticipated because of equipment loss during transit from Vancouver to Resolute. Though measurements and some histological tissue was obtained, most of the hematological data, tissue for ultrastructural research, and arterial compliance data was not.

We established a base camp on the east coast of the Horden Peninsula (Map 2) and remained there from August 21 to August 29. Eleven whales were sampled and one purchased for plastic perfusion.

The following tables contain most of the information required to meet terms stipulated in the permit:

Table 1 Sample Sites

Table 2 Sample Data (samples taken; dates of sampling; length; comments on reproductive tract; age)

Age and a more complete description of ovaries taken will follow

Table 3 Amount paid to native people for samples

Table 4 Hematological data for Delphinapterus leucas

Table 5 Hematological data for Monodon monoceros

The hematological data for the beluga is poor mainly as a result of post mortem changes. In addition, a hand centrifuge was used to obtain hematocrits and as a result values are somewhat high. Hematocrit data for the narwhal was obtained using a proper electric hematocrit centrifuge run with a small generator.

Hb analysis was done with a AO hemaglobinometer.

A hemacytometer was used to obtain the red blood cell counts (RBC).



Digitized by the Internet Archive
in 2025 with funding from
University of Toronto

<https://archive.org/details/31761120644141>

Tissue collected from the beluga for ultrastructural research has been processed and unfortunately shows extensive post-mortem change which makes it difficult to interpret structure. As a result, material will have to be collected again, hopefully from the narwhal since it appears that tissue from this species is readily accessible minutes after death (slightly different techniques are used when hunting narwhal than when hunting beluga). Hematological and compliance data will also have to be collected from this species.

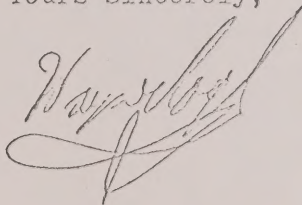
Muscle myoglobin concentrations are presently being determined as is the structure and extensiveness of the retial system in each species.

Comparative information on diving capabilities will follow when all the necessary data has been collected. An application for a permit renewal will be forwarded in the new year.

I hope this brief progress report meets your requirements.

Thank you.

Yours sincerely,

A handwritten signature in cursive script, appearing to read "Wayne Vogl", written in dark ink.

Wayne Vogl

